

U.S. Patent Application No. 10/795,968
Amendment dated June 28, 2005
Reply to Office Action dated March 31, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-35 (canceled)

36. (Currently amended) Niobium powder, wherein after sintering at a temperature of 1100°C ~~to 1300°C~~ for 10 minutes and anodized using a formation voltage of ~~10Vf to 50Vf~~ 20Vf at 60°C, has a capacitance of at least 65,000 CV/g and a DC leakage of less than 5.0 ~~nA/CV~~ nA/CV.

37. (Currently amended) The niobium powder of claim 36, wherein said capacitance is from 65,000 to about ~~250,000~~ 150,000 CV/g.

38. (Currently amended) The niobium powder of claim 36, wherein said capacitance is from about 75,000 to about ~~250,000~~ 175,000 CV/g.

39. (Previously presented) The niobium powder of claim 36, wherein said capacitance is from about 100,000 to about 250,000 CV/g.

40. (Previously presented) The niobium powder of claim 36, wherein said capacitance is from about 125,000 to about 250,000 CV/g.

41. (Previously presented) The niobium powder of claim 36, wherein said capacitance is from about 100,000 to about 210,000 CV/g.

42. (Currently amended) The niobium powder of claim 36, wherein said ~~formation voltage is from about 30 to 50 volts~~ DC leakage is from about 0.50 nA/CV to less than 5.0 nA/CV.

43. (Previously presented) The niobium powder of claim 36, wherein said niobium powder comprises flaked niobium powder.

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44. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has a BET surface area of at least about $5.5 \text{ m}^2/\text{g}$.

45. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has a BET surface area of at least about $7.0 \text{ m}^2/\text{g}$.

46. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has a BET surface area of at least about $10 \text{ m}^2/\text{g}$.

47. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has a BET surface area of from $6.0 \text{ m}^2/\text{g}$ to about $12 \text{ m}^2/\text{g}$.

48. (Currently amended) The niobium powder of claim 36, wherein said niobium powder ~~is sintered at a temperature of from about 1200°C to about 1750°C~~ has an oxygen content of less than 1,000 ppm.

49. (Currently amended) The niobium powder of claim 36, wherein said ~~formation voltage is 20 to 35 volts~~ niobium powder has an oxygen content of from about 2,000 ppm to about 60,000 ppm.

50. (Previously presented) The niobium powder of claim 36, wherein said niobium powder is nitrogen doped.

51. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has at least about 100 ppm of nitrogen present.

52. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has nitrogen present in an amount of from about 100 ppm to about 5,000 ppm.

53. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has a flow of at least about 80 mg/s.

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54. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has a flow of from about 80 to about 500 mg/s.

55. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has a Scott Density of about 35 g/in³ or less.

56. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has a Scott Density of from about 10 to about 35 g/in³.

57. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has a particle size of from 5 to 80 microns.

58. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has an aspect ratio of from about 3 to about 300.

59. (Previously presented) The niobium powder of claim 36, wherein said niobium powder comprises agglomerated niobium powder.

60. (Previously presented) The niobium powder of claim 36, wherein said niobium powder is an agglomerated powder.

61. (Previously presented) The niobium powder of claim 36, wherein said niobium powder has a Scott Density of about 35 g/in³ or less, and a flow of at least about 80 mg/s.

62. (Previously presented) The niobium powder of claim 61, wherein said niobium powder has a particle size of from 5 to 80 microns.

63. (Previously presented) The niobium powder of claim 62, wherein said niobium powder has an aspect ratio of from about 3 to about 300.

64. (Previously presented) The niobium powder of claim 62, wherein said niobium powder is agglomerated.